

## Claims

1. A transgenic laboratory animal over-expressing GPR40 comprising the promotor *lpf1/Pdx1* for controlling the expression of GPR40.

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2. The transgenic animal of claim 1, wherein the animal is a rodent.

3. The transgenic animal of claim 2, wherein the animal is a mouse or a rat.

10 4. A method for testing whether a chemical compound possessing a certain effect for treating diabetes Type 2 using a transgenic laboratory animal comprising the steps of:

a) providing a chemical compound to be tested;

b) providing a transgenic laboratory animal according to claim 1;

15 c) exposing said animal to said chemical compound; and

d) determining whether said chemical compound has an effect on the blood glucose level in said animal.

20 5. A method for testing whether a chemical compound possessing a certain effect for treating diabetes Type 2 using a transgenic laboratory animal comprising the steps of:

a) providing a chemical compound to be tested;

b) providing a transgenic laboratory animal according to claim 1;

c) exposing said animal to said chemical compound; and

25 d) determining whether said chemical compound has an effect on the triglyceride level in said animal.

30 6. A method for testing whether a chemical compound possessing a certain effect for treating diabetes Type 2 using a transgenic laboratory animal comprising the steps of:

a) providing a chemical compound to be tested;

- b) providing a transgenic laboratory animal according to claim 1;
- c) exposing said animal to said chemical compound; and
- d) determining whether said chemical compound has an effect on the low density lipoprotein (LDL) level in said animal.

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7. A method for testing whether a chemical compound possessing a certain effect for treating diabetes Type 2 using a transgenic laboratory animal comprising the steps of:

- a) providing a chemical compound to be tested;
- 10 b) providing a transgenic laboratory animal according to claim 1;
- c) exposing said animal to said chemical compound; and
- d) determining whether said chemical compound has an effect on the high density lipoprotein (HDL) level in said animal.

15 8. A method for testing whether a chemical compound possessing a certain effect for treating diabetes Type 2 using a transgenic laboratory animal comprising the steps of:

- a) providing a chemical compound to be tested;
- b) providing a transgenic laboratory animal according to claim 1;
- 20 c) exposing said animal to said chemical compound; and
- d) determining whether said chemical compound has an effect on the free fatty acids in said animal.

25 9. A method for testing whether a chemical compound possessing a certain effect for treating diabetes Type 2 using a transgenic laboratory animal comprising the steps of:

- a) providing a chemical compound to be tested;
- b) providing a transgenic laboratory animal according to claim 1;
- c) exposing said animal to said chemical compound; and
- 30 d) determining whether said chemical compound has an effect on the glucose tolerance content in said animal.